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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/784,410	02/23/2004	John W. Muncaster	72531 00001	1795

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EXAMINER	
NORDMEYER, PATRICIA L	
ART UNIT	**PAPER NUMBER**
1772	

DATE MAILED: 09/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/784,410	MUNCASTER ET AL.	
	Examiner	Art Unit	
	Patricia L. Nordmeyer	1772	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *31 July 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-84* is/are pending in the application.

4a) Of the above claim(s) *44-84* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-43* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *23 February 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date 2/04, 6/04 .
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of group I, claims 1 - 43 in the reply filed on July 31, 2006 is acknowledged.

Information Disclosure Statement

2. The information disclosure statements (IDS) submitted on February 23, 2004 and June 14, 2004 is being considered by the examiner.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1 – 7, 25 – 31 and 41 – 43 are rejected under 35 U.S.C. 102(b) as being anticipated by Tajima et al. (USPN 3,937,640).

Tajima et al. disclose a layered composite waterproofing membrane (Column 15, lines 31 – 33) comprising a layer of rubberized asphalt having first and second sides (Figure 1C, #20; Column 6, lines 6 – 8) with a flexible layer of durable plastic film continuously bonded to the first side (Figure 1C, #14; Column 6, line 63 to Column 7, line 11) and a layer of geotextile

continuously bonded to the second side (Figure 1C, #6; Column 5, lines 39 – 49) as in claim 1. The rubberized asphalt is rubber-modified bitumen (Column 6, lines 5 – 8) comprising from about 5 to about 20 or 10 to about 15 percent rubber (Column 6, lines 31 – 45) as in claims 2 – 4. As in claims 5 – 7, the rubberized asphalt is modified with a block copolymer chosen from styrene-butadiene-styrene block copolymer (Column 6, line 15) or styrene-isoprene-styrene block copolymer (Column 6, line 17). Tajima et al. also disclose a layered composite waterproofing membrane (Column 15, lines 31 – 33) having an overall thickness (Figure 1C) and comprising a layer of rubberized asphalt having first and second sides (Figure 1C, #20; Column 6, lines 6 – 8) with a flexible layer of durable plastic film continuously bonded to the first side (Figure 1C, #6; Column 5, lines 56 – 58) and a release liner releasably attached to the second side (Figure 1C, #14; Column 6, line 63 to Column 7, line 11), the plastic film layer having a thickness comprising about ¼ to about 1/3 of the overall thickness of the membrane (Figure 1C, #6) as in claim 25. The rubberized asphalt is rubber-modified bitumen (Column 6, lines 5 – 8) comprising from about 5 to about 20 or 10 to about 15 percent rubber (Column 6, lines 31 – 45) as in claims 26 - 28. As in claims 29 - 31, the rubberized asphalt is modified with a block copolymer chosen from styrene-butadiene-styrene block copolymer (Column 6, line 15) or styrene-isoprene-styrene block copolymer (Column 6, line 17). With regard to claims 41 - 43, the release liner comprises a polymeric film (Column 7, line 3), a paper (Column 7, line 4) or is precoated with a release agent (Column 7, lines 5 – 12).

5. Claims 1 – 4, 8 – 12, 23 – 28, 33 and 39 – 43 are rejected under 35 U.S.C. 102(b) as being anticipated by Stierli (USPN 4,442,148).

Stierli discloses a layered composite waterproofing membrane (Column 1, lines 5 – 7) comprising a layer of rubberized asphalt having first and second sides (Figure 1, #1; Column 2, lines 51 – 55) with a flexible layer of durable plastic film continuously bonded to the first side (Column 2, lines 55 – 57; Figure 1, #3) and a layer of geotextile continuously bonded to the second side (Column 3, lines 42 – 45) as in claim 1. The rubberized asphalt is rubber-modified bitumen comprising from about 5 to about 20 or 10 to about 15 percent rubber (Column 3, lines 9 – 15) as in claims 2 – 4. As in claims 8 and 9, the plastic film has a thickness ranging from about 1 mil up to a thickness where the layer ceases to be flexible (Column 3, lines 58 – 61), and the plastic is cross-laminated to resist punctures (Column 3, line 66 to Column 4, line 1). With regard to claims 10 and 11, the plastic film layer has a thickness ranging from about 10 to about 25 mils or about 20 mils (Column 3, lines 58 – 61). The plastic film layer comprises polyethylene (Column 3, line 67) as in claim 12. Regarding claims 23 and 24, the membrane has an overall thickness ranging from about 30 to about 150 mils or about 65 to about 95 mils (Column 3, lines 35 – 38; Column 3, lines 58 – 61). Stierli also discloses a layered composite waterproofing membrane (Column 1, lines 5 – 7) having an overall thickness and comprising a layer of rubberized asphalt having first and second sides (Figure 1, #1; Column 2, lines 51 – 55) with a flexible layer of durable plastic film continuously bonded to the first side (Column 2, lines 55 – 57; Figure 1, #3) and a release liner releasably attached to the second side (Column 4, lines 28 – 33; Figure 1, #4), the plastic film layer having a thickness comprising about ¼ to about 1/3 of the overall thickness of the membrane (Column 3, lines 58 – 61) as in claim 25. The rubberized asphalt is rubber-modified bitumen comprising from about 5 to about 20 or 10 to about 15 percent rubber (Column 3, lines 9 – 15) as in claims 26 – 28. The plastic film layer

comprises polyethylene (Column 3, line 67) as in claim 34. Regarding claims 39 and 40, the membrane has an overall thickness ranging from about 30 to about 150 mils or about 65 to about 95 mils (Column 3, lines 35 – 38; Column 3, lines 58 – 61). With regard to claims 41 - 43, the release liner comprises a polymeric film, a paper or is precoated with a release agent (Column 4, lines 28 – 33; Figure 1, #4).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 13 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stierli (USPN 4,442,148) in view of Draper et al. (USPN 3,474,625).

Stierli discloses a layered composite waterproofing membrane (Column 1, lines 5 – 7) comprising a layer of rubberized asphalt having first and second sides (Figure 1, #1; Column 2, lines 51 – 55) with a flexible layer of durable plastic film continuously bonded to the first side (Column 2, lines 55 – 57; Figure 1, #3) and a layer of geotextile continuously bonded to the second side (Column 3, lines 42 – 45). Stierli also discloses a layered composite waterproofing membrane (Column 1, lines 5 – 7) having an overall thickness and comprising a layer of rubberized asphalt having first and second sides (Figure 1, #1; Column 2, lines 51 – 55) with a flexible layer of durable plastic film continuously bonded to the first side (Column 2, lines 55 –

57; Figure 1, #3) and a release liner releasably attached to the second side (Column 4, lines 28 – 33; Figure 1, #4), the plastic film layer having a thickness comprising about ¼ to about 1/3 of the overall thickness of the membrane (Column 3, lines 58 – 61). However, Stierli fails to disclose the plastic film layer comprising polypropylene.

Draper et al. teach a laminate of asphaltic material and a film of a polypropylene (Column 6, lines 42 – 43) for the purpose of preventing reflection cracking of a surface that is being used to repair a surface or roadway (Column 2, lines 60 – 63).

It would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to have provided the polypropylene film material in Stierli in order to prevent reflection cracking of a surface that is being used to repair a surface or roadway as taught by Draper et al.

8. Claims 14 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stierli (USPN 4,442,148) in view of Clapperton (USPN 4,386,981).

Stierli discloses a layered composite waterproofing membrane (Column 1, lines 5 – 7) comprising a layer of rubberized asphalt having first and second sides (Figure 1, #1; Column 2, lines 51 – 55) with a flexible layer of durable plastic film continuously bonded to the first side (Column 2, lines 55 – 57; Figure 1, #3) and a layer of geotextile continuously bonded to the second side (Column 3, lines 42 – 45). Stierli also discloses a layered composite waterproofing

membrane (Column 1, lines 5 – 7) having an overall thickness and comprising a layer of rubberized asphalt having first and second sides (Figure 1, #1; Column 2, lines 51 – 55) with a flexible layer of durable plastic film continuously bonded to the first side (Column 2, lines 55 – 57; Figure 1, #3) and a release liner releasably attached to the second side (Column 4, lines 28 – 33; Figure 1, #4), the plastic film layer having a thickness comprising about ¼ to about 1/3 of the overall thickness of the membrane (Column 3, lines 58 – 61). However, Stierli fails to disclose the plastic film layer comprising high-density polyethylene.

Clapperton teaches a laminate of asphaltic material and a film high-density polyethylene (Column 5, lines 1 – 17) for the purpose of preventing moisture vapor transmission through the laminate (Column 2, lines 60 – 63).

It would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to have provided the polypropylene film material in Stierli in order to prevent moisture vapor transmission through the laminate as taught by Clapperton.

9. Claims 15 – 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stierli (USPN 4,442,148) in view of Dempsey et al. (USPN 5,513,925).

Stierli discloses a layered composite waterproofing membrane (Column 1, lines 5 – 7) comprising a layer of rubberized asphalt having first and second sides (Figure 1, #1; Column 2, lines 51 – 55) with a flexible layer of durable plastic film continuously bonded to the first side

(Column 2, lines 55 – 57; Figure 1, #3) and a layer of geotextile continuously bonded to the second side (Column 3, lines 42 – 45). Stierli also discloses a layered composite waterproofing membrane (Column 1, lines 5 – 7) having an overall thickness and comprising a layer of rubberized asphalt having first and second sides (Figure 1, #1; Column 2, lines 51 – 55) with a flexible layer of durable plastic film continuously bonded to the first side (Column 2, lines 55 – 57; Figure 1, #3) and a release liner releasably attached to the second side (Column 4, lines 28 – 33; Figure 1, #4), the plastic film layer having a thickness comprising about ¼ to about 1/3 of the overall thickness of the membrane (Column 3, lines 58 – 61). However, Stierli fails to disclose the geotextile being non-woven, made of fibers comprising olefinic polymers, poly-alpha olefins and polyesters or polypropylene.

Dempsey teaches a geotextile being non-woven (Column 6, lines 34 – 35), made of fibers comprising olefinic polymers, poly-alpha olefins and polyesters or polypropylene (Column 3, lines 1 – 16) for the purpose of having a material that allows horizontal movement in an underlying surface to which it is attached without breaking the bond with the underlying pavement (Column 2, lines 58 – 61).

It would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to have provided the geotextile being non-woven, made of fibers comprising olefinic polymers, poly-alpha olefins and polyesters or polypropylene in Stierli in order to have a material that allows horizontal movement in an underlying surface to which it is attached without breaking the bond with the underlying pavement as taught by Dempsey.

10. Claims 20 – 22 and 36 – 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stierli (USPN 4,442,148) in view of Bohnhoff (USPN 5,250,340).

Stierli discloses a layered composite waterproofing membrane (Column 1, lines 5 – 7) comprising a layer of rubberized asphalt having first and second sides (Figure 1, #1; Column 2, lines 51 – 55) with a flexible layer of durable plastic film continuously bonded to the first side (Column 2, lines 55 – 57; Figure 1, #3) and a layer of geotextile continuously bonded to the second side (Column 3, lines 42 – 45). Stierli also discloses a layered composite waterproofing membrane (Column 1, lines 5 – 7) having an overall thickness and comprising a layer of rubberized asphalt having first and second sides (Figure 1, #1; Column 2, lines 51 – 55) with a flexible layer of durable plastic film continuously bonded to the first side (Column 2, lines 55 – 57; Figure 1, #3) and a release liner releasably attached to the second side (Column 4, lines 28 – 33; Figure 1, #4), the plastic film layer having a thickness comprising about ¼ to about 1/3 of the overall thickness of the membrane (Column 3, lines 58 – 61). However, Stierli fails to disclose a drainage mat attached to the high-density polyethylene layer by bonding through adhesive.

Bohnhoff teaches a drainage mat (Figure 7) attached to the high-density polyethylene layer (Column 1, lines 57 – 60) by bonding through adhesive (Column 4, lines 51 – 55) for the purpose of providing a stabilized surface for vehicular or pedestrian traffic (Column 4, lines 63 – 66).

It would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to have provided the drainage mat attached to the high density polyethylene layer by bonding through adhesive in Stierli in order to provide a stabilized surface for vehicular or pedestrian traffic as taught by Bohnhoff.

11. Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stierli (USPN 4,442,148) in view of Terry et al. (USPN 5,763,036).

Stierli discloses a layered composite waterproofing membrane (Column 1, lines 5 – 7) having an overall thickness and comprising a layer of rubberized asphalt having first and second sides (Figure 1, #1; Column 2, lines 51 – 55) with a flexible layer of durable plastic film continuously bonded to the first side (Column 2, lines 55 – 57; Figure 1, #3) and a release liner releasably attached to the second side (Column 4, lines 28 – 33; Figure 1, #4), the plastic film layer having a thickness comprising about ¼ to about 1/3 of the overall thickness of the membrane (Column 3, lines 58 – 61). However, Stierli fails to disclose a release liner with a thickness ranging up to about 4 mils.

Terry et al. teach a release liner with a thickness ranging up to about 4 mils (Column 4, lines 47 – 47) as part of moisture barrier (Column 8, lines 36 – 37) for the purpose of protecting the tacky surface of the bitumen prior to use (Column 4, lines 55 – 58).

It would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to have provided the release liner with a thickness ranging up to about 4 mils in Stierli in order to protect the tacky surface of the bitumen prior to use as taught by Terry et al.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent No. 5,143,766 to Wenz et al. is cited to show the state of the art with regard to the use of a bituminous sealing web using a non-woven material in combination with a thermoplastic polymer layer.

U.S. Patent No. 5,132,183 to Gaidis et al. is cited to show the state of the art with regard to the use of a waterproof laminate using SBR or SBS in combination with an asphalt.

U.S. Patent No. 5,096,759 to Simpson et al. is cited to show the state of the art with regard to the use of a bituminous sealing web in combination with a thermoplastic polymer layer and a release paper.

U.S. Patent No. 4,684,288 to Chapa is cited to show the state of the art with regard to the use of a pavement tile, which uses a thermoplastic polymer layer in combination with a asphalt aggregate material.

U.S. Patent No. 4,775,567 to Harkness is cited to show the state of the art with regard to the use of a bituminous sealing web in combination with a thermoplastic polymer layer and a release paper

U.S. Patent Application Publication 2001/0002497 to Scuero is cited to show the state of the art with regard to the use of geocomposites in road and bridge construction.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patricia L. Nordmeyer whose telephone number is (571) 272-1496. The examiner can normally be reached on Mon.-Thurs. from 10:00-7:30 & alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Y. Pyon can be reached on (571) 272-1498. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Patricia L. Nordmeyer
Examiner
Art Unit 1772

pln